Midterm Review % Composition Problems/metric/mol Station 1/5

1. Find the percent composition of Pb3(PO4)2 .
2. Find the percent composition of Mercury(II)oxide if 12.8 g of mercury liquid is formed when

21.3 g of mercury is decomposed by heating.

1. \* Convert 7.3 x 10 -2 cm=\_\_\_\_\_\_\_\_\_\_\_\_\_\_μm \* p 85

5.2 x 10 18kmol=\_\_\_\_\_\_\_\_\_\_\_\_\_nmol

1. Which of the following contains the largest number of atoms?
2. 82.0 g of Kr b. 0.842 mol of C2H4 c. 26.0 g of N2?

Chem 111 Half-Life Problems/Isotope Abundance

1. If you start with 80 g of plutonium-242, how much will remain in 1.52 x 106 years?
2. If 30% of a sample is left after 7 years, find its half-life.
3. Use the isotope abundance to calculate the average atomic mass. Show your work

mass % natural abundance

**Samarium Sm(144)** 143.912009 *3.10*

**Sm(147)** 146.914907 *15.00*

**Sm(148)** 147.914832 *11.30*

**Sm(149)**  148.917193 *13.80*

**Sm(150)** 149.917285 *7.40*

**Sm(152)** 151.919741 *26.70*

**Sm(154)**  153.922218 *22.70*